

Lindane

Chemical Information

CAS Number - 58-89-9

Alternate Names - Hexachlorocyclohexane, gamma-

General Uses - This chemical was mainly used on fruit and vegetable crops to kill insects. Today it is used as an ingredient in ointments that help cure head lice, body lice, and scabies. This chemical hasn't been made in the United States since 1977, but it is still imported into the country and formulated. Only individuals who are certified can use this chemical.

Potential Hazards - This chemical is highly toxic; it may be fatal if inhaled, swallowed or absorbed through the skin.

Summary Analysis— Lindane

- In 2003, only 71 pounds of lindane were reported – by 1 facility, located in Idaho. This quantity of lindane accounts for less than 0.1 percent of the total quantity of PCs in 2003. Since 1999, the quantity of lindane has decreased by over 97 percent. Since 1999, no more than 2 facilities reported lindane in a given year.
- Treatment was the primary method used to manage lindane in 1999-2003. A significant quantity of lindane was recycled in each reporting year, compared to the total PC quantity.
- Since 1999, only facilities in SIC 2879 (Pesticides and agricultural chemicals, nec) have reported a PC quantity (pounds) of lindane. One facility accounted for 100 percent of this chemical in 2003. In 1999-2003, this facility reported less than 100 pounds of lindane each year, including 71 pounds in 2003.

National Trends – Lindane. Exhibit 4.134 presents the total PC quantity (pounds) of lindane in 1999 to 2003, showing the disposal, treatment, energy recovery, as well as recycling quantities. Since 1999, no more than 2 facilities reported lindane in a given year. In 1999-2003, the largest quantity of lindane was reported in 1999 – by 2 facilities. In 2003, 1 facility reported 71 pounds of lindane. Since 1999, the quantity of lindane has significantly decreased by over 97 percent. Treatment was the primary method used to manage lindane in 1999-2003, used for 100 percent of the total quantity of lindane in 2003. A significant quantity of lindane was recycled in each reporting year.

Exhibit 4. 134. National-Level Information for Lindane

| | 1999 | 2000 | 2001 | 2002 | 2003 | Percent Change (1999--2003) | Management Method -- Percent of Quantity of this Chemical in 2003 |
|-----------------------------------|-------|------|------|------|------|--------------------------------|---|
| Number of Facilities | 2 | 1 | 1 | 2 | 1 | -50.0% | |
| Disposal Quantity (lbs.) | 18 | 17 | 16 | 0 | 0 | -100.0% | 0.0% |
| Energy Recovery Quantity (lbs.) | 0 | 0 | 0 | 0 | 0 | NA | 0.0% |
| Treatment Quantity (lbs.) | 2,704 | 47 | 30 | 183 | 71 | -97.4% | 100.0% |
| Priority Chemical Quantity (lbs.) | 2,722 | 64 | 46 | 183 | 71 | -97.4% | |
| Recycling Quantity (lbs.) | 1,121 | 215 | 188 | 163 | 179 | -84.0% | |

EPA Region Trends- Lindane. Exhibit 4.135 shows the quantity (pounds) of lindane reported by facilities in each EPA Region in 1999 to 2003. During this time, facilities in only 3 EPA Regions reported lindane; only one facility – located in Region 10 – reported lindane in 2003.

Exhibit 4. 135. Quantity of Lindane Reported by EPA Regions (1999-2003)

| EPA Region | 1999 | 2000 | 2001 | 2002 | 2003 | Percent Change in Quantity (1999-2003) | Percent Of the Total Priority Chemical quantity (2003) |
|-------------------|--------------|-------------|-------------|-------------|-------------|---|---|
| 7 | 2,644 | 0 | 0 | 0 | 0 | -100.0% | 0.0% |
| 8 | 0 | 0 | 0 | 86 | 0 | NA | 0.0% |
| 10 | 78 | 64 | 46 | 97 | 71 | -9.0% | 100.0% |
| Total | 2,722 | 64 | 46 | 183 | 71 | -97.4% | |

Exhibit 4.137 shows how lindane was managed by the one facility, located in Region 10, which reported this chemical in 2003 (Exhibit 4.136). This facility sent all 71 pounds of their lindane to offsite treatment. More than twice the quantity of lindane treated was recycled onsite.

Exhibit 4. 136. Facility Reporting Lindane in 2003

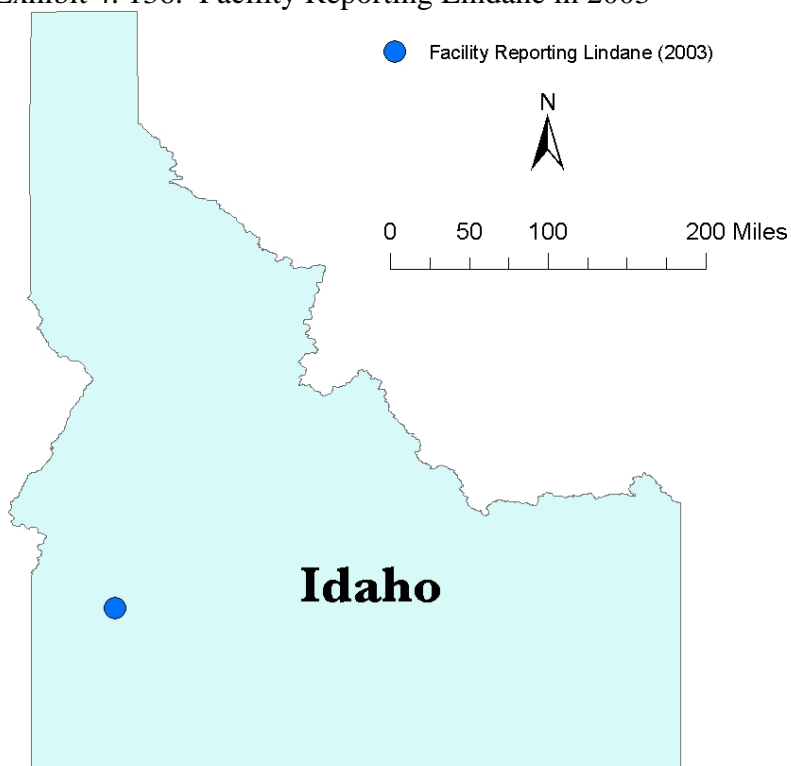


Exhibit 4. 137. Management Methods for Lindane, By EPA Region (2003)

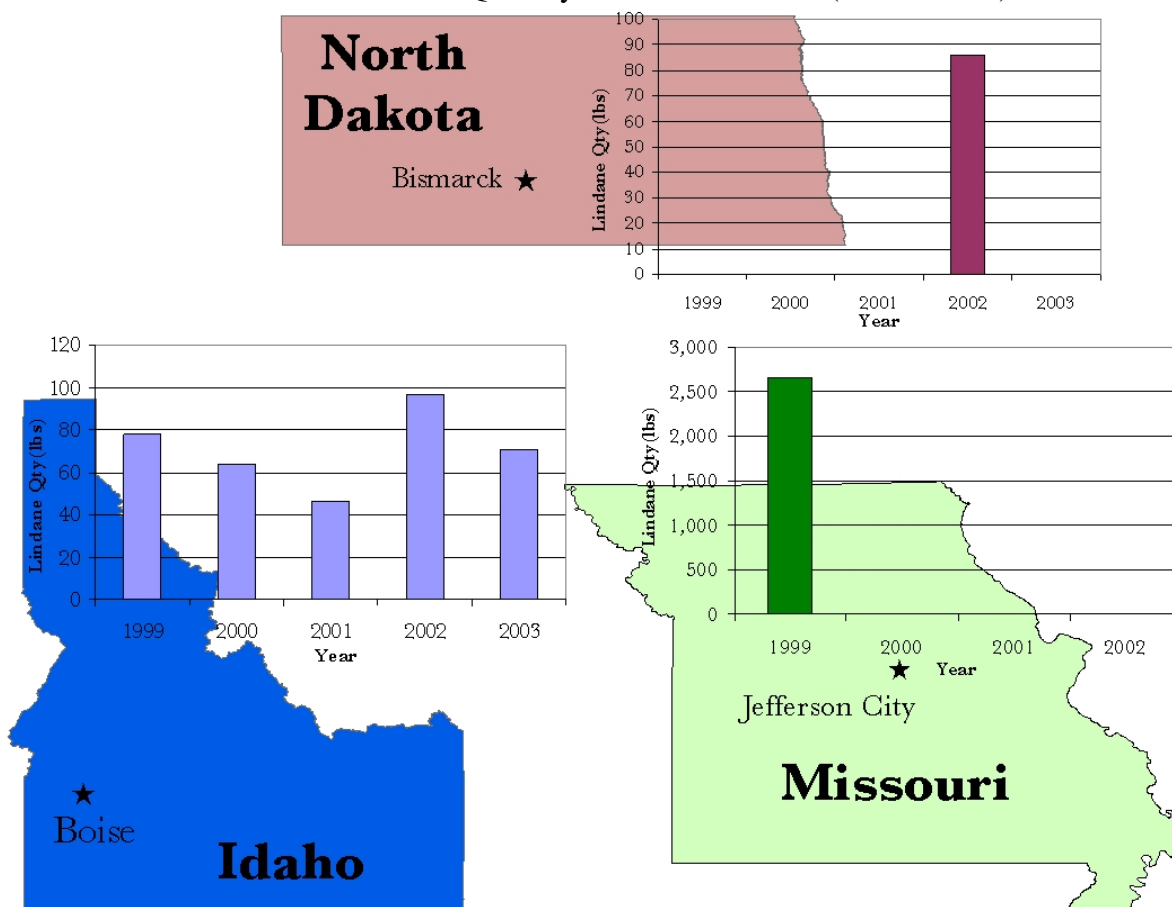
| EPA Region | Disposal | | Energy Recovery | | Treatment | | Recycling | |
|------------|-----------------|------------------|------------------------|-------------------------|------------------|-------------------|------------------|-------------------|
| | Onsite Disposal | Offsite Disposal | Onsite Energy Recovery | Offsite Energy Recovery | Onsite Treatment | Offsite Treatment | Onsite Recycling | Offsite Recycling |
| 10 | 0 | 0 | 0 | 0 | 0 | 71 | 179 | 0 |

State Trends- Lindane. Since 1999, only 3 facilities reported lindane -- one facility each in Idaho, Missouri, and North Dakota (Exhibits 4.138 and 4.139). The facility in Missouri only reported lindane in 1999 and their 1999 quantity was the highest reported quantity of any of these three facilities in 1999-2003. The facility in North Dakota only reported lindane in 2002. Only the facility in Idaho reported lindane each year (1999-2003) and was the only facility to report this chemical in 2003. As noted above, this facility used offsite treatment to manage 100 percent of their lindane.

Exhibit 4. 138. State-Level Information for Lindane (1999-2003)

| State | 1999 | 2000 | 2001 | 2002 | 2003 | Change in Quantity (1999-2003) | Percent Change in Quantity (1999-2003) | Percent of Total Quantity of this Priority Chemical (2003) |
|--------------|-------|------|------|------|------|--------------------------------|--|--|
| Idaho | 78 | 64 | 46 | 97 | 71 | -7 | -9.0% | 100.0% |
| Missouri | 2,644 | 0 | 0 | 0 | 0 | -2,644 | -100.0% | 0.0% |
| North Dakota | 0 | 0 | 0 | 86 | 0 | 0 | NA | 0.0% |

Exhibit 4. 139. State Quantity Trends of Lindane (1999 – 2003)



Industry Sector (SIC) Trends- Lindane. Exhibit 4.140 shows the PC quantity (pounds) of lindane in SIC 2879 (Pesticides and agricultural chemicals, nec) where one facility accounted for 100 percent of this chemical in 2003.

Exhibit 4. 140. Industry Sector-Level Information for Lindane (1999-2003)

| Primary SIC Code | SIC Description | Number of Facilities for this SIC Code (2003) | 1999 | 2000 | 2001 | 2002 | 2003 | Change in Quantity (2000-2003) | Percent Change in Quantity (1999-2003) | Percent of Total Quantity of this Priority Chemical (2003) |
|------------------|--|---|------|------|------|------|------|--------------------------------|--|--|
| 2879 | Pesticides and agricultural chemicals, nec | 1 | 78 | 64 | 46 | 97 | 71 | -7 | -9.0% | 100.0% |